

NOMENCLATRURAL CHANGES IN PTEROMALIDAE, WITH A
DESCRIPTION OF THE FIRST NEW WORLD SPECIES OF *ORMOCERUS*
WALKER (HYMENOPTERA: CHALCIDOIDEA)

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Abstract.—The new species *Ormocerus americanus* Dzhankmen and Grissell is described based on specimens reared from cynipid galls on oak in Texas. The following **new synonymies** are proposed: *Abyrsomele* Dzhankmen 1975a = *Halticopterina* Erdős 1946; *Halticopterina penthocoryne* Dzhankmen 1975a = *H. moczari* Erdős 1954; *Homoporus longiventris* Dzhankmen 1999 = *H. cupreus* Erdős 1953; *Phaenocytus heptapotamicus* Dzhankmen 1990 = *P. glechomae* (Förster 1841); *Pseudocatolaccus amegallus* Dzhankmen 1989 = *P. nitescens* (Walker 1834); *Pteromalus maculatus* Dzhankmen 1998 = *P. vopiscus* Walker 1839; *Stenoselma haplogastra* Dzhankmen 1975a = *S. nigrum* Delucchi 1956; *Stenoselma armeniaca* Dzhankmen and Herthetvzian 1990 = *S. nigrum* Delucchi 1956; *Stirogenium* Dzhankmen 1985 = *Paracarotomus* Ashmead 1894; *Stirogenium asiaticum* Dzhankmen 1985 = *Paracarotomus cephalotes* Ashmead 1894. The following are **new combinations**: *Chlorocytus arkansensis* (Girault) from *Habrocytus* Thomson; *C. languriae* (Ashmead) from *Habrocytus* Thomson; *C. rhodobaeni* (Ashmead) from *Habrocytus*; *C. simillimus* (Gahan) from *Habrocytus*; *C. vassilieffi* (Ashmead) from *Homoporus* Thomson; *Halticopterina lauta* (Dzhankmen) from *Abyrsomele* Dzhankmen; *Mesopolobus elyni* (Dzhankmen) from *Platneptis* Bouček; *Neocatolaccus carinatus* (Howard) from *Catolaccus* Thomson.

Key Words: Chalcidoidea, Pteromalidae, cynipid galls, oak

The family Pteromalidae is worldwide in distribution and is numerically the third largest family within the superfamily Chalcidoidea (Noyes 2001). Currently there is virtually no worldwide consensus of opinion on the ranks of taxa composing the family or of the definition of subfamilies that should be recognized. The status of a great many higher level taxa have not been evaluated and most of the genera and species remain unstudied. We take this opportunity to make some changes in the nomenclature of Holarctic pteromalids based upon ex-

amination of the types and collection material from the Canadian National Collection, Ottawa (CNC); The Natural History Museum, London (NHM, London); National Museum of Natural History, Smithsonian Institution, Washington D.C. (USNM); Natural History Museum, Budapest (NHM, Budapest); Zoological Institute, St. Petersburg (ZI); and Institute of Zoology, Almaty, Kazakhstan. We also describe a new species of *Ormocerus* Walker, reared from cynipid galls on oak, which is the first reported species of the genus in the New World.

NEW SYNONYMIES

Halticopterina Erdős

Halticopterina Erdős 1946: 160.

Type species: Halticopterina triannulata Erdős. Original designation. (NHM, Budapest, examined.)

Abyrsomele Dzhankmen 1975a: 627. **New synonymy.**

Type species: Abyrsomele lauta Dzhankmen. Original designation. (ZI, examined.)

The type species of *Abyrsomele* does not differ from *Halticopterina* in generic characters and is herein considered a subjective junior synonym of the latter genus.

Halticopterina moczari Erdős

Halticopterina moczari Erdős 1954: 153–154. (NHM, Budapest, examined.)

Halticopterina penthocoryne Dzhankmen 1975a: 625–627. **New synonymy.** (ZI, examined.)

Examination of the type specimens leaves no doubt that *H. penthocoryne* is a subjective junior synonym of *H. moczari*.

Homoporus cupreus Erdős

Homoporus cupreus Erdős 1953: 245. (NHM, Budapest, examined.)

Homoporus longiventris Dzhankmen 1999: 183–185. **New synonymy.** (ZI, examined.)

Homoporus longiventris was distinguished from *H. cupreus* chiefly by having lighter colored antennae and legs and by its narrower gaster. These differences, based upon an examination of several series of specimens, now appear to occur within the range of variation of a single species and we consider *H. longiventris* a subjective junior synonym of *H. cupreus*.

Phaenocytyus glechomae (Förster)

Pteromalus glechomae Förster 1841: 21.
Phaenocytyus glechomae: Graham 1969: 562–563.

Phaenocytyus heptapotamicus Dzhankmen 1990: 65–67. **New synonymy.** (ZI, examined.)

The genus *Phaenocytyus* Graham was created for *Pteromalus glechomae* Förster. Although we have not seen the type, we compared *P. heptapotamicus* with specimens of *P. glechomae* housed in the NHM, London. The two are identical and we consider the former a subjective junior synonym of *P. glechomae*.

Pseudocatolaccus nitescens (Walker)

Amblymerus nitescens Walker 1834: 347. (NHM, London, examined.)

Pseudocatolaccus nitescens: Graham 1969: 694–696.

Pseudocatolaccus amegallus Dzhankmen 1989: 45–46. **New synonymy.** (ZI, examined.)

Examination of the type and additional series of *Pseudocatolaccus nitescens* (Walker) convinces us that it is the same as *P. amegallus*. *Pseudocatolaccus nitescens* is a rather variable species (Graham 1969), and it seems that *P. amegallus* is just a form of *P. nitescens* having the postmarginal vein shorter than normal. Thus we consider *P. amegallus* a subjective junior synonym of *P. nitescens*.

Pteromalus vopiscus Walker

Pteromalus vopiscus Walker 1839: 274. (NHM, London, examined.)

Pteromalus maculatus Dzhankmen 1998: 494–496. **New synonymy.** (ZI, examined.)

Examination of the type of *Pteromalus vopiscus* Walker showed that *P. maculatus* is almost certainly the same species. It differs from the latter in small details that we consider to fall within the range of individual variability of *P. vopiscus*. For this reason we place *P. maculatus* as a subjective junior synonym of *P. vopiscus*.

Paracarotomus Ashmead

Paracarotomus Ashmead 1894: 335–336.

Type species: Paracarotomus cephalotes Ashmead. Monobasic. (USNM, examined.)

Stirogenium Dzhankmen 1985: 152. **New synonymy.**

Type species: Stirogenium asiaticum Dzhankmen. Original designation. (ZI, examined.)

Based upon an examination of the type species of *Paracarotomus* and *Stirogenium*, the latter differs in no morphological way and so is now considered a subjective junior synonym of *Paracarotomus*.

Paracarotomus cephalotes Ashmead

Paracarotomus cephalotes Ashmead 1894: 335. (USNM, examined.)

Stirogenium asiaticum Dzhankmen 1985: 152–153. **New synonymy.** (ZI, examined.)

After comparing the type specimens of *Stirogenium asiaticum* and *Paracarotomus cephalotes* we found that they differ in no way. Therefore we consider *Stirogenium asiaticum* a subjective junior synonym of *Paracarotomus cephalotes*.

Stenoselma nigrum Delucchi

Stenoselma nigrum Delucchi 1956: 66–68. *Stenoselma haplogastra* Dzhankmen 1975b: 1096–1097. **New synonymy.** (ZI, examined.)

Stenoselma armeniaca Dzhankmen and Herthetvzian 1990: 139–142. **New synonymy.** (ZI, examined.)

We examined all the determined specimens of *S. nigrum* in NHM, London. The differences between *Stenoselma nigrum* and *S. haplogastra* appear to fall within the range of variation of a single species, and we have no hesitation in placing *S. haplogastra* as a subjective junior synonym of *S. nigrum*. The differences given in the description of *armeniaca* also fall within the range of variation of *nigrum* and we place *S. armeniaca* as a subjective junior synonym of *S. nigrum*.

NEW COMBINATIONS

As a result of the examination of the types of additional pteromalid species, we propose the following new combinations:

Chlorocyclus arkansensis (Girault 1917), **n. comb.** from *Habrocyclus* Thomson
Chlorocyclus languriae (Ashmead 1896), **n. comb.** from *Habrocyclus* Thomson
Chlorocyclus rhodobaeni (Ashmead 1896), **n. comb.** from *Habrocyclus* Thomson
Chlorocyclus simillimus (Gahan 1919), **n. comb.** from *Habrocyclus* Thomson
Chlorocyclus vassiliefi (Ashmead 1903), **n. comb.** from *Homoporus* Thomson
Halticopterina lauta (Dzhankmen 1975a), **n. comb.** from *Abyrsomele* Dzhankmen
Mesopolobus clymi (Dzhankmen 1984), **n. comb.** from *Platneptis* Bouček
Neocatolaccus carinatus (Howard 1897), **n. comb.** from *Catolaccus* Thomson

The genus *Chlorocyclus*, established by Graham (1956), was not formally reported in the Nearctic until 1997 (Bouček and Heydon 1997). No described species were included at that time, and the above new combinations are the first species reported for the Nearctic. These taxa were described much earlier when such important characteristics as the shape and structure of the prepectus and propodeum were not critically analyzed. In *Chlorocyclus* the prepectus is large and uniformly reticulate, the propodeum is nearly always large (more than half as long as the scutellum) and with irregular carinae and shallow spiracular sulci. Additionally, in *Chlorocyclus* the antennal clava in profile is often asymmetrical, its upper edge strongly curved. These characters distinguish *Chlorocyclus* from the morphologically similar genus *Pteromalus* Swederus (and its synonym *Habrocyclus*, which some may regard as a subgenus).

Ormocerus Walker

Burks (1979) placed the genus *Ormoceus* Walker in the subfamily Miscogasterinae, tribe Ormocerini and included *O. flora*

(Girault) and *O. vulgaris* (Ashmead) in the genus. Heydon and Bouček (1992) examined the types of these two species and determined that neither belonged to *Ormocerius*. For *O. flora* they established the genus *Ficicola* Heydon and Bouček; they transferred *O. vulgaris* to the genus *Seladerma* Walker. As a result of these actions, none of the described Nearctic species remained in the genus *Ormocerius*. In their key to Nearctic genera of Pteromalidae, Bouček and Heydon (1997) cited *Ormocerius* as having "at least 4 spp." based apparently on their knowledge of undescribed species in the region. Frankie et al. (1992: Table 17.6) listed, but did not discuss, "*Ormocerius* n. sp." as a parasitoid of the sexual generation of a cynipid gall on oak in Texas. It is this material, representing the first known species of the genus from the New World, that we describe herein.

***Ormocerius americanus* Dzhanokmen
and Grissell, new species**

(Figs. 1–4)

Female holotype.—Body length 2.1 mm. Head, mesosoma, and coxae dark green with metallic gloss. Metasoma dark fulvous. Antenna dark; scape dark with metallic tinge, pedicel dark brown, flagellum brown. Femora mainly brown to black with metallic green tinge, tibiae fuscous except at apices, remaining parts of legs testaceous, apices of tarsi fuscous. Forewing appearing hyaline, but with slight fuscous cloud below stigmal vein extending below marginal to parastigmal vein; venation brownish testaceous.

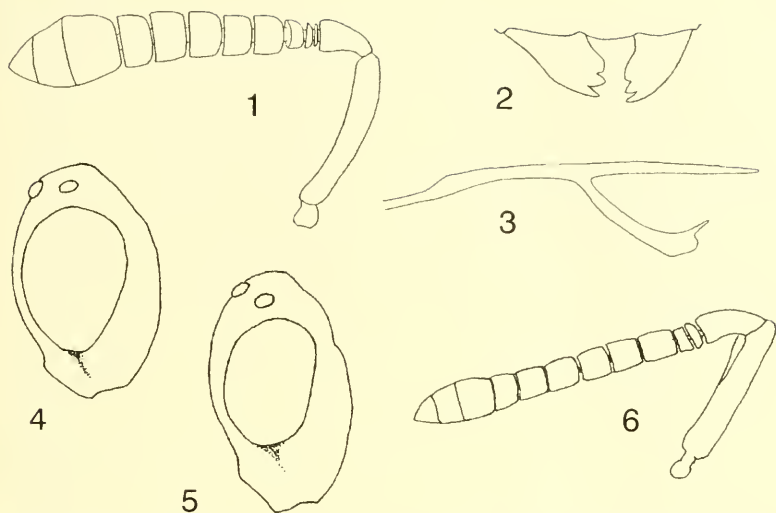
Head in dorsal view 2.3 times as broad as long, POL about 2.3 OOL, head transversely oval in frontal view. Gena relatively short (Fig. 4), very slightly curved, converging strongly towards mouth. Anterior margin of clypeus (Fig. 2) evenly curved forward. Eyes relatively large, height about 2.5× height of gena (Fig. 4). Antennae inserted low on face, toruli at or slightly above level of ventral eye margin. Antennal flagellum clavate (Fig. 1); 2 transverse anel-

li, anellus barely as wide as first funicle segment; first funicle segment shorter and narrower than second; second and third segments slightly transverse; following segments strongly transverse. Both mandibles with three teeth (Fig. 2). Maxillary palp 4-segmented, labial palp 3-segmented.

Mesosoma about 1.4× as long as broad. Mesoscutum with reticulate sculpture, interspersed with numerous minute pits from which arise setae, which cover mesoscutum. Notaulus complete and deep, not interrupted by sculpture. Scutellum distinctly longer than broad, convex, sculptured like mesoscutum though with more conspicuous pits among reticulation on lateral sides and base. Frenum weakly delimited. Propodeum medially nearly $\frac{1}{6}$ scutellum length, weakly alutaceous, almost smooth, with distinct median carina, without plicae. Callus with several hairs; spiracles subcircular, separated by nearly $\frac{3}{4}$ their greatest diameter from metanotum. Upper mesopleuron large, polished and smooth. Prepectus finely reticulate. Spur of midtibia longer than first tarsal segment. Forewing with speculum closed below, not extending farther than beginning of marginal vein; disc beyond speculum densely setose. Lower surface of costal cell with only a few setae in distal $\frac{1}{3}$. Basal cell with some setae proximally and distally along cubital vein; basal vein a conspicuous transparent tract, with only one or two setae at junction dorsally with parastigma. Apical margin of wing with fringe. Postmarginal vein slightly longer than marginal, latter 1.2× longer than stigmal (Fig. 3).

Metasoma about as long as mesosoma, 1.8× as long as broad, acute apically, narrower than mesosoma. Basal tergite occupying $\frac{1}{3}$ total length, its hind margin medially emarginate. Gaster ventrally keeled, hypopygium extending nearly $\frac{1}{2}$ distance from base of gaster to tips of ovipositor sheath, which project slightly at most.

Male.—Body length 2.0 mm. Agreeing with female except as follows: forewing completely hyaline; stigmal vein elongately triangular (instead of linear), widening from



Figs. 1-6. *Ormocerus* spp. 1-4, *Ormocerus americanus*, female. 1, Antenna. 2, Mandibles and anterior margin of clypeus. 3, Forewing venation. 4, Head, lateral view. 5-6, *Ormocerus latus*, female. 5, Head, lateral view. 6, Antenna.

marginal vein to junction with stigma where it is subequal in width; flagellum cylindrical, clothed with dense, semierect setae, funicular segments strongly transverse and nearly twice width of anellus.

Variation.—Female specimens vary from 1.8 to 2.1 mm in length. There is little variation in color except the general metallic green tinge of the femora may disappear, leaving them dark brown in color. The forewing infuscation is obscure at best; in some specimens it is little more than a slight darkening posterior to the stigma; in others it is barely visible but extends to the parastigma. The eye height ranges from 2.5 to 3 times the genal length. Only one male is known.

Type material.—Holotype ♀, Dallas, Dallas County, Texas, coll. 2-IV-1974, em. 1-15-V-1974, coll. Gordon Frankie, ex bisexual generation *Disholcaspis cinerosa* (Bassett) [Hymenoptera: Cynipidae] on *Quercus virginiana* Mill [Fagaceae]

(USNM); 15 ♀, 1 ♂ paratypes same data as holotype; 3 ♀ paratypes same data except collected 29-III-1974 (no emergence date) (USNM; 1 ♀ paratype in ZI, 2 ♀ paratypes in CNC).

Host.—The species was reared from the bisexual generation of *Disholcaspis cinerosa* on *Quercus virginiana*.

Discussion.—*Ormocerus americanus* differs from the two European species, *O. latus* Walker and *O. vernalis* Walker chiefly in its shorter gena and larger eye (Fig. 4). The eye is 2.5 to 3 times the genal length in *O. americanus*, whereas in *O. latus* and *O. vernalis* it is about 2 times the genal length (Fig. 5). Both *O. americanus* and *O. latus* differ from *O. vernalis* in several features including: the presence of an apical wing fringe (absent from *O. vernalis*), the basal cell has many setae and the basal vein is relatively bare (basal cell bare but the basal vein with several rows of setae in *O. vernalis*), forewing with pale infuscation

sometimes seen only with difficulty (darkly infuscated in *O. vernalis*), the stigmal vein is curved (straight in *O. vernalis*), and the propodeum is lightly reticulate (coarsely rugulose in *O. vernalis*). *Ormocerus americanus* differs from *O. latus* by the basal flagellomeres being wider than long (Fig. 1) (longer than wide in *O. latus*, Fig. 6); the notauli sharply defined as nearly smooth grooves (ill-defined and interrupted by sculpture in *O. latus*); and the median area of the propodeum less reticulately sculptured (almost alutaceous) than the lateral areas (nearly uniformly sculptured in *O. latus*).

The three known species of this genus attack cynipid gall-formers on oak.

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